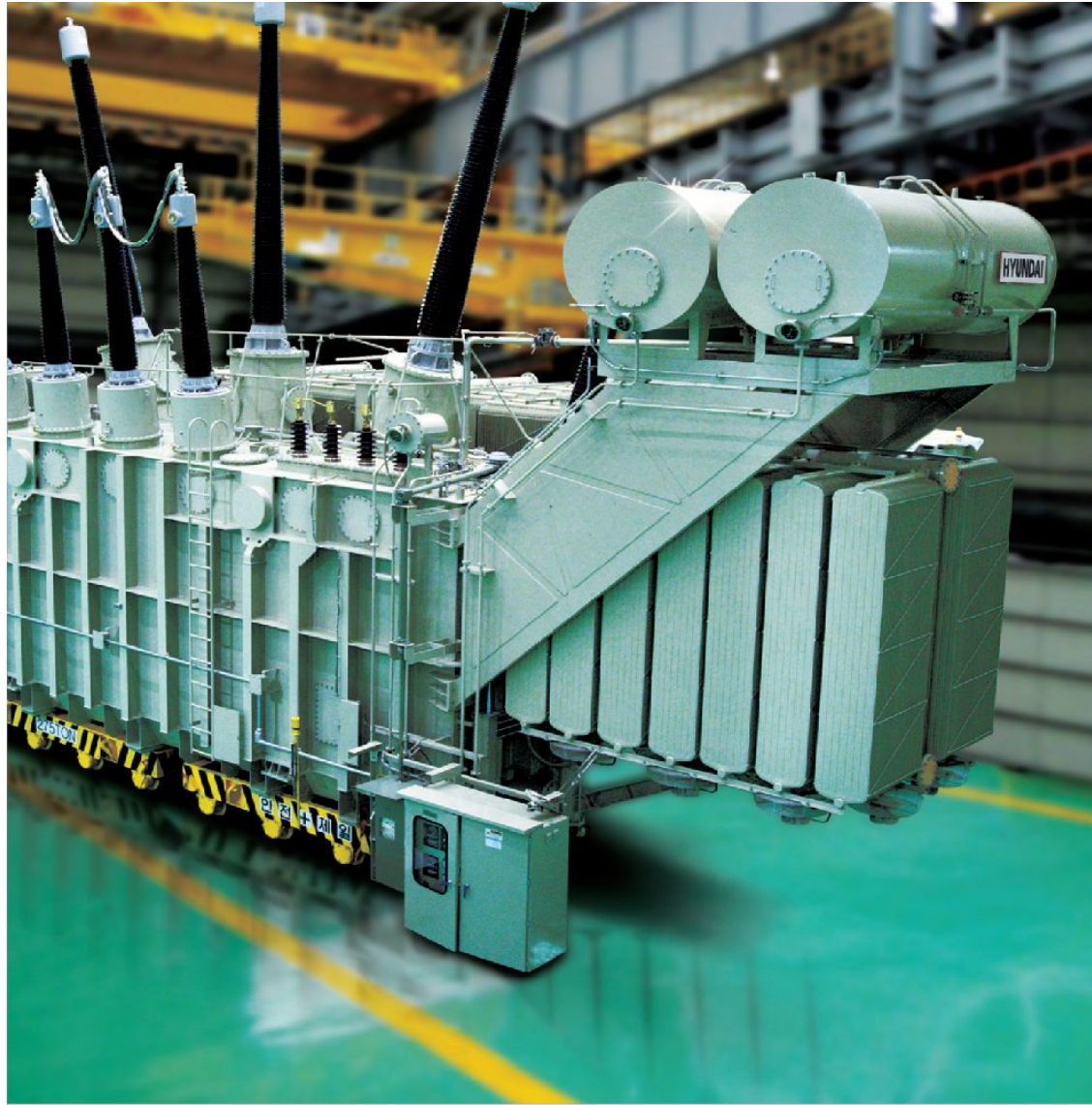


Hyundai Heavy Industries, South Korea	Basic Design of an High Power Laboratory	2013-2014	*
Testing Facilities and maximum ratings of equipment to be tested			
<ul style="list-style-type: none"> ● High Voltage Synthetic test bay for: <ul style="list-style-type: none"> ● short-time, short-circuit, short-line fault, out of phase, capacitive and shunt-reactor switching tests on HV circuit-breakers with rated voltage up to 252 kV, short-circuit current up to 63 kA in 3-phase tests, ● short-time, bus transfer and induced current switching tests on HV GIS Disconnectors and Earthing Switches, short-circuit current up to 63 kA, ● MV test bay for: <ul style="list-style-type: none"> ● short-time, short-circuit, short-line fault, out of phase, capacitive switching 3-phase tests on MV circuit-breakers rated voltage up to 25,8 kV, short-circuit current up to 31,5 kA, ● internal arc test on MV GIS Cubicles with short-circuit current up to 31,5 kA, ● Mainly active Load tests on MV Switches with rated voltage up to 25,8 kV, rated current 800 A, ● short-circuit tests on Distribution Transformers with rated voltage of the winding connected to the supply during the test up to 34,5 kV, ● LV test bay for short-time and short-circuit tests on LV circuit-breakers with rated voltage up to 690 V, short-circuit current up to 200 kA. 			
Tasks performed:			
<ul style="list-style-type: none"> ● Assessment of testing requirements, ● Laboratory Configuration and preliminary calculation of circuit parameters, ● Basic ratings of the 1800 MVA Short-circuit Generator, ● MV/HV, MV/MV and MV/LV Short-circuit Laboratory Transformers banks configuration and ratings, ● Basic ratings of the testing equipment used in direct and synthetic tests in order to obtain TRV in agreement with Standard, ● Testing capabilities of the three test bays. 			



* Developed in cooperation with CESI